



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/753,187	01/02/2001	Kyung-Ha Lee	678-582 (P9637)	1102
28249	7590	11/16/2004	EXAMINER	
DILWORTH & BARRESE, LLP 333 EARLE OVINGTON BLVD. UNIONDALE, NY 11553			TON, DANG T	
			ART UNIT	PAPER NUMBER
			2666	

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/753,187

Applicant(s)

LEE ET AL.

Examiner

DANG T TON

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2&4</u> . | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2666

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-6 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Lee et al. (EP 1102506).

For claims 1-6 and 8, Lee et al. disclose a method for performing handoff between asynchronous base station and synchronous base station comprising the steps of:

driving the sync demodulation module in the mobile station for a given idle sleep time to acquire and maintain the timing of the sync base station, during an operation in the cell of the async base station (see column 11 lines 13-21);

during the handoff measuring in the mobile station the strengths of pilot signals from adjacent sync base stations based on the acquired timing, and sending the measurement results to the async base station (see column 11 lines 7-10);

Art Unit: 2666

receiving in the mobile station from the async base station information necessary to establish a traffic channel with the sync channel (see column 10 lines 11-14), and

performing handoff in the mobile station to the sync base station according to the information necessary to establish the traffic channel (see column 8 lines 8-12); wherein the timing of the sync base station includes PN short code timing and PN long code timing (see column 8 lines 17-19);

updating the timing based on the timing when the maximum value of the measured strengths of the pilot signals exceeds a threshold value (see column 9 lines 39-44);

the async base station informing the mobile station entering the cell of the async base station that there exist adjacent sync base stations (see column 11 lines 7-10);

driving the sync demodulation module in the mobile station for a given idle sleep time to acquire and maintain the timing of the sync base station, during an operation in the cell of the async base station (see column 11 lines 13-21);

during the handoff the async base station sending information about the adjacent sync base stations to the sync base station (see column 11 lines 7-10);

the mobile station measuring the strengths of pilot signals from the adjacent sync base stations based on the acquired timing of the sync base station, and sending the measurement results to the async base station (see column 11 lines 7-10),

the mobile station receiving from the async base station information necessary to establish a traffic channel with the sync channel (see column 10 lines 11-14); and

mobile station performing handoff to the sync base station according to the information necessary to establish the traffic channel (see column 8 lines 8-12);

acquiring the pilot signal of the sync base station for the given idle sleep time to acquire the reference timing of a pseudo-noise (Pm short code; and modulating the sync channel of the sync base station for the given idle sleep time to acquire the timing of a PN long code (see column 8 lines 17-19 and column 10 lines 11-26);

when the pilot signal cannot be acquired for the idle sleep time, requesting the async base station for a pilot acquisition time and, if granted, acquiring the pilot signal for the given time allowed by the async base station to acquire the timing of a PN short code (see column 10 lines 31-47);

an async demodulation module for converting a high-frequency signal from an base station to a base band signal and demodulating the base band signal by async despreading (It is inherent that there is modulation/demodulation since it is a RF system);

a sync demodulation module for converting a high-frequency signal from a sync base station to a base band signal and demodulating the base band signal by despreading (It is inherent that there is modulation/demodulation since it is a RF system);

a switch for switching the received signal between the async and sync demodulation modules (see column 8 lines 8-12); and

a controller for driving the sync demodulation module for a given time interval

to acquire the timing of the sync base station during an operation in the cell of an async base station, and maintaining the acquired timing of a sync base station even after switching to the async demodulation module (see column 11 lines 7-10 and 13-21).

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. in view of Wang et al. (WO 99/20074).

For claim 7, Lee et al. disclose all the subject matter of the claimed invention with the exception of the sync channel for given time allowed by the async base station to acquire the timing of a PN long code in a communications network. Wang from the

same or similar fields of endeavor teaches a provision of the mobile station being adjusted its timing in accordance with the synchronous channel information and then entering the mobile station idle state (see page 10 lines 8-11). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the given time as taught by Wang et al. in the communications network of Lee et al.

The sync channel for given time allowed by the async base station to acquire the timing of a PN long code as taught by Wang et al. can be implemented/ modified into the network of Lee since Lee et al. do teach the sync channel.

The motivation for using the sync channel for given time allowed by the async base station to acquire the timing of a PN long code as taught by Wang et al. into the Lee reference being that it provides synchronizing the base station to acquire the timing of the PN long code.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Brardjanian et al. (6,567,480) is cited to show a system which is considered pertinent to the claimed invention.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANG T TON whose telephone number is 571-272-3171. The examiner can normally be reached on MON-WED, 5:30 AM-6:00 PM and Thur 5:30-9:30 A.M.

Art Unit: 2666

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RAO SEEMA can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

D. Ton



D. TON
PATENT EXAMINER